UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Distr.
LIMITED

E/ECA/ATD/AREC.E/5
1 September 1986

Original: ENGLISH

ECONOMIC COMMISSION FOR AFRICA

Second Ordinary Meeting of the Executive Board of African Regional Centre for Solar Energy

Bujumbura, Burundi, 5 November 1986

ECONOMIC COMMISSION FOR AFRICA

Third Extraordinary Meeting of the Council of African Regional Centre for Solar Energy

Bujumbura, Burundi, 6 November 1986

DRAFT PROGRAMME OF ACTION FOR 1986/1987

BEST COPY AVAILABLE

[illegible] 1986/1987

1.1 Introduction

The work programme and budget for the African Regional Centre for Solar Energy for the year 1986/1987 is prepared according to the objectives of the Centre which are:

(a) to encourage African Governments to include in their development plans, with priority status, projects for the development and utilization of renewable sources of energy in general and of solar, wind and bio-methane energy in particular;

(b) to encourage the introduction of studies of new energy utilization in school and university curricula and strengthen research in solar energy and its derivatives and experimentation and applications of such energy;

(c) to aid member States in carrying out fundamental research in solar energy, to strengthen existing centres or promote the creation of new centres, and to carry out research and products development as necessary and test products, systems, or appliances for performance, reliability and adaptability;

(d) to promote multinational co-operation with regard to the practical use of solar energy and other renewable sources of energy;

(e) to encourage the establishment of new national centres as necessary and establish subregional centres for purposes of liaison and co-ordination in the field of research and development of solar energy utilization;

(f) to encourage the popularization of local manufacture of equipment using solar energy and promote local industries in the fields of solar technology so as to reduce the cost of equipment making use of solar energy in Africa;

(g) to do everything in its power to improve the conditions in which research is conducted and to enhance the working conditions of researchers by awarding prizes;

(h) to work towards the establishment of data bank in solar energy and its derivatives;

(i) by means of demonstrations, seminars, workshops, meetings, trade fairs, exhibitions of equipment and films, arouse awareness among States members of the region of the sources, uses and benefits of solar energy;

(j) to disseminate results of solar energy studies co-ordinated in the region or elsewhere in the world;

(k) to take such other steps and do such other things as are related to or are incidental to the functions of the Centre or as may promote the attainment of the objectives of the Centre;

(l) to ensure that research findings are made the common property of the member States.

In line with these objectives, the Centre plans to execute the following programme of activities and services during the period November 1986 to December 1987.

A. Policy making organs

B. Executive direction and management

C. Programme of activities

1. Research and applications
2. Information and documentation
3. Training

D. Programme support

Administration and common services

1.2 Budgetary constraints and member States' actual contributions

The resources to launch and operate the Centre are expected to be derived from the annual contributions of the member States. The contributions of the member States are the main means of implementing the work programme of the Centre, although the Centre will strive to broaden its base of international financial support, through bilateral and multilateral sources. The contributions of each member State are based on the agreed upon coefficients of contributions and Centre's total regular budget as shown in Annex III.

1.3 Capital development

The Centre is expected to acquire from the host country a plot of land on which to build permanent premises. It is recommended that the member States begin to make special contributions which can be set aside as Capital Development Fund for the construction of the Centre.

1.4 Conclusion

It is appropriate to stress the need for speedy action by member Governments, not only to meet their recurrent budgetary commitments but also to contribute to the Capital Development Fund for the operational activities and construction of the Centre's buildings respectively. Every effort has been made to ensure that the budget for 1986/87 is kept at an absolute minimum. The format in which the programme and budget are presented is designed to facilitate easy financial management of the Centre. The format will also enable member States to identify readily the Centre's priority programmes and to see how funds have been allocated and utilized among the various expense categories.

The work programme and budget is for the period running from 1 November 1986 to 31 December 1987. The budget is for operational activities only. The budget for construction of permanent premises has been left out in response to the decision of the Council meeting in Bujumbura, 11-13 June 1986, which decided that the first year budget should be for operational activities only. Similarly, Council decided that for the first operational year only four Divisions should be established, viz: Administration, Information and Documentation, Research and Applications and Training (see Annex I).

As the Centre has had no previous experience in provision of resources for the activities, the levels of estimated figures may be a little higher or a little lower than the actual requirements. It is hoped that the future estimates will be better in the light of the experience of the pioneer years.

The salaries of both professional and general service categories are based on the salaries scales of the UNU. The cost adjustment used is that applicable by UNU in Addis Ababa.

Overall Budget (1986/1987)

Analysis of overall costs (in US$)

	Programme	Total estimates (Nov. 1986 - Dec. 1987)
A.	Policy-making organs	50,000
B.	Executive direction and management	123,250
C.	Programmes	
	1. Research and application	122,500
	2. Information and documentation	97,500
	3. Training	50,000
D.	Programme support Administration and common services	254,143
	Total	713,093

Budget for 1986/1987

Summary of overall costs by object of expenditure

	Main objects of expenditure	Estimated requirements (US$)
010	Salaries	202,643
020	Administrative support	49,000
030	General temporary assistance	4,000
031	Temporary assistance for meetings	21,500
040	Consultants	27,000
050	Overtime	3,500
100	Common staff costs	101,750
210	Travel of Board members	25,000
220	Travel of staff to official meetings	--
240	Other official travel on missions	66,000
300	Contractual translation	3,500
340	External printing	--
410	Rental and maintenance	4,000
420	Utilities of premises	7,000
430	Rental and maintenance of furniture and equipment	10,000
440	Communication	15,000
450	Hospitality	3,000
490	Miscellaneous services	17,000
500	Supplies and materials	21,500
600	Furniture and equipment	133,000
	Total	713,493

Overall Post Requirements, 1986/1987

Programme: Executive Direction, Programmes and Programme Support

Description	Regular Budget 1986/1987	Extrabudgetary 1986/1987	Total 1986/1987
Professional category and above			
D2	1	-	1
P5	1	-	1
P4	4	-	4
P3	-	-	-
P2	1	-	1
P1	-	-	-
Sub-total	7	-	7
General services category			
GS8	2	-	2
GS8	1	-	1
GS7	4	-	4
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	6	-	6
GS1	-	-	-
Sub-total	13	-	13
Grand total	20	-	20

2.1 A. Programme Policy-making Organs

Analysis of overall costs (in US$)

	Object of expenditure	Estimates of expenditure
020	Supplementary staff for meetings (interpreters, secretaries, etc.)	21,500
050	Overtime	2,000
210	Official travel of Board members	25,000
440	Communications	5,000
450	Hospitality	1,000
490	Miscellaneous services	2,000
500	Supplies and material	1,500
	Total	50,000

Explanatory notes

The Centre's policy-making organs are the Council of Ministers and the Executive Board, each of which meets once a year. The cost of organizing the meetings of those organs in 1977 will be borne by the budget for policy-making organs as follows:

Supplementary staff. The meetings of the policy-making organs are conducted in English and French. Therefore, additional temporary staff such as translators, interpreters and secretaries are required. The cost is estimated at US$21,500.

Overtime. During meetings times, General Services staff are required to work beyond normal working hours in order to type and produce the report.

Official travel. This expense category applies to the members of the policy-making organs especially the Executive Board attending meetings away from their duty stations. This is estimated at US$25,000.

Communications. This expense category refers to the communications costs relating to the meetings of the policy-making organs.

Hospitality. An amount of US$1,000 has been estimated.

Miscellaneous. Under this category, US$2,000 has been estimated for local transportation.

Supplies and materials. A provision of US$1,500 has been made to meet the cost of supplies and materials such as stationery, pencils, ink, etc.

The total for policy making organs is US$58,000.

2.2 1. Programme Executive Direction and Management

Analysis of overall costs (in US$)

Object of expenditure		Estimates of expenditure
010	Established posts	65,500
100	Common staff costs	32,750
240	Travel on mission	25,000
	Total	123,250

Explanatory notes

The overall direction and management of the Centre is provided by the office of the Executive Director assisted by the Deputy Executive Director and Chief Technical Advisor. The Executive Director is, therefore, responsible for the direction and management of the Centre's programmes.

Salaries of established posts and common staff costs

This category covers the emoluments of staff members of the Executive Director, Deputy Executive Director and Chief Technical Advisor. At the Council of Ministers' meeting held in Bujumbura, 11-13 June 1986, decided that for the first year the post of Deputy Executive Director, along with two Directors of Division, should be suppressed. Therefore, the estimates for 1986/1987 under this programme are for the posts of Executive Director and Chief Technical Advisor. Secretarial support is provided by one secretary at GSC level.

Travel on missions

A total of US$25,000 has been estimated for the travel of the Executive Director and Chief Technical Advisor to visit Member States, non-member States and international organizations for the purpose of follow-up, project or programme related consultations, raising funds as well as soliciting state membership.

Established Post Requirements

(1986/1987)

Programme: Executive Direction and Management

Description	Regular Budget 1986/87	Extrabudgetary 1986/87	Total
Professional category and above			
D2 (Executive Director)	1	-	1
D1 (Chief Technical Adviser)	1	-	1
P5	-	-	-
P4	-	-	-
P3	-	-	-
P2	-	-	-
P1	-	-	-
Sub-total	2	-	2
General services category			
GS9	-	-	-
GS8	1	-	1
GS7	-	-	-
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	-	-	-
GS1	-	-	-
Sub-total	1	-	1
Grand total	3	-	3

2.3.1 C. Programme 1 Research and Application

The Research and Applications Division will be responsible for the implementation of research, development, transfer and adaptation of technology and testing activities in three fields: solar, wind and biomass energy. It contributes to research in solar energy and its derivatives and undertakes testing and the applications of such energy at the national, subregional and regional levels in Africa. The Division also helps member States in carrying out basic research and in developing research and prototypes.

(i) in the field of solar energy, the activities focus on research, development experimentation tests and measurements in the photovoltaic field such as power production, water pumping and air conditioning/refrigeration and in the thermodynamic field such as heating, drying, distilation, cooking, water pumping and cooling, etc. The solar energy potential conversions, solar radition measurements and measuring equipment are standardized and the data computerized;

(ii) in the field of wind energy, activities are concentrated on an inventory of wind energy potential, research and development, testing and equipment trials and measurements and applications in such fields as water pumping, power production, energy storage, etc.

(iii) in the field of biomass energy, activities are also concentrated on an inventory of potential, research, applications, measurement and tests in such areas as methane fermentation, direct combustion, pyrolisis/gasification and production of methanol and ethanol.

The activities of the Research and Application Division are closely related to the activities of all the other technical divisions of the Centre, including training activities.

Research and Application

Analysis of overall costs (in US$)

Object of expenditure		Estimates of expenditure
010	Established posts	32,000
040	Consultants (fees and travel)	13,500
100	Common staff costs	15,000
240	Travel on missions	12,000
600	Equipment	50,000
	Total	122,500

Explanatory notes

The work programme of the Division of Research and Applications is attached as Annex II. The budget estimates is based on the assumption that only the Director of the Division will be on board for the whole period 1986/87.

Salaries of estimated posts and common staff costs

The provision under this expense catergory is for the post of Director of the Division to be occupied for 14 months. One technical assistant at GSO level has also been provided for. One bilingual secretary will provide secretarial services.

Travel on missions

An amount of US$12,000 has been provided for travel to member States for the purpose of follow-up on the implementation of the programmes, conducting studies, assessments and collection of information in the field of solar energy.

Consultants

An amount of US$13,500 has been set aside for consultants who will carry out specialized work in which the Centre does not have the expertise or time to carry out the activity. Two work/months have been provided for this.

Equipment

US$50,000 has been estimated for purchase of initial equipment and materials such as solar collectors, solar heaters, pumps, materials for construction of biogas digestors, solar cookers, windmills, etc. for research and application and training.

Established Post Requirements

(1986/87)

Programme: Research and Publication

Description	Regular Budget 1986/87	Extrabudgetary 1986/87	Total
Professional category			
P6	-	-	-
P5	-	-	-
P4 (Director)	1	-	1
P3	-	-	-
P2	-	-	-
P1	-	-	-
Sub-total	1	-	1
General services category			
GS9	1	-	1
GS8	-	-	-
GS7	1	-	1
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	-	-	-
GS1	-	-	-
Sub-total	2	-	2
Grand total	3	-	3

2.3.3 C. Programme 3: Documentation and Information Division

The Documentation and Information Division will use modern data collection, storage and recovery techniques to establish a data bank on new and renewable sources of energy with special reference to solar energy and its derivations.

It will organize a continuous exchange of information with national, subregional, regional and international organizations involved in new and renewable sources of energy and particularly solar, wind and biomass energy.

It will disseminate the results of available solar energy studies conducted in the region or elsewhere in the world.

It will ensure that the Centre's research findings become the common property of member States.

It will organize the library and its activities and advise on and support the establishment of national documentation units on new and renewable sources of energy etc.

Documentation and Information Division

Analysis of overall costs (in US$)

Object of expenditure		Estimates of expenditure
010	Established posts	33,000
040	Consultants (fees and travel)	13,500
100	Common staff costs	15,000
240	Travel on missions	12,000
600	Equipment	25,000
	Total	97,500

Explanatory notes

This programme will be carried out by the Centre's Documentation and Information Division. The programme and work plan are attached to the budget as Annex I.

Salaries of established posts and common staff costs

The Division has only one established post for the period 1986/87. The cost, including common staff cost, come to US$47,000. A secretary has also been provided for at G-7 level.

Travel on missions

An amount of US$12,000 has been estimated for travel of staff in connexion with implementation of the work programme in the member States as well as collection of information from the member States and other sources.

Consultants

US$13,500 has been set aside for short-term consultants to carry out specialized work for which the Centre has no expertise.

Equipment

In order to set up a Documentation and Information Division, equipment such as shelves, mini computer, micro film readers, catalogue holders, etc. will be required. For this a sum of US$25,000 has been estimated.

Established Post Requirements

(1986/1987)

Programme: Documentation and Information

Description	Regular Budget 1986/87	Extrabudgetary 1986/87	Total
Professional category			
P5	-	-	-
P4	-	-	-
P4 (Director)	1	-	1
P3	-	-	-
P2	-	-	-
P1	-	-	-
Sub-total	1	-	1
General services category			
GS9	-	-	-
GS8	-	-	-
GS7	1	-	-
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	-	-	-
GS1	-	-	-
Sub-total	1	-	1
Grand total	2	-	2

2.3.3. C. Programme 3 Training Division

The Training Division prepares and implements the training programme of the Centre, including fellowships and provides training for the Centre's staff. It organizes meetings, seminars and study tours, etc., helps to formulate and implement national training programmes in the field of new and renewable sources of energy and provides technical assistance to the national and sub-regional centres actively involved in solar, wind and biomass energy.

This Division draws upon the expertise of other units and in particular Research and Applications Unit and the Design, Manufacturing and Maintenance Unit.

Training Division

Analysis of overall costs (in US$)

Object of expenditure		Estimates of expenditure
010	Established posts	32,000
100	Common staff costs	15,000
240	Travel on mission	12,000
	Total	59,000

Explanatory notes

This programme is implemented by the Centre's Training Division.

Salaries of established posts and common staff costs

The Division has only one post for the 1977/78 year. The costs of this expense category is, therefore, those that pertain to the post of the Director, a secretary at G7 level and common staff costs.

Travel on missions

For travel of staff in connexion with the implementation of the work programme, US$12,000 has been estimated.

Established Post Requirements

(1986/1987)

Programme: Training

Description	Regular Budget 1986/87	Extrabudgetary 1986/87	Total
Professional category			
P6	-	-	-
P5	-	-	-
P4 (Director)	1	-	1
P3	-	-	-
P2	-	-	-
P1	-	-	-
Sub-total	1	-	1
General services category			
GS9	-	-	-
GS8	-	-	-
GS7	1	-	1
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	-	-	-
GS1	-	-	-
Sub-total	1	-	1
Grand-total	2	-	2

2.3.4 D. Programme: Programme Support (Administrative and Common Services)

The Administration will deal with personnel, finance, conferences and general services. It will establish and implement the administrative and finance policies and procedures of the Centre and undertake such specific tasks as.

(i) mobilize external financial aid for the implementation of projects for the development and utilization of new and renewable sources of energy at the national, subregional and regional levels;

(ii) mobilize funds for regional programmes related to the design and manufacturing of equipment using new and renewable sources of energy;

(iii) study the establishment of specialized financial institutions in the field of new and renewable sources of energy at national, subregional and regional levels and co-ordinate their activities;

(iv) enter into research and development contracts with national and subregional centres.

As far as conference services are concerned, the Administration will follow the regular programme of meetings and provide the necessary support services (staff, equipment, supplies, translation, interpretation, reproduction, etc.).

Concerning general services, it will ensure that buildings, laboratories and auxiliary equipment of the Centre are properly maintained.

Programme Support (Administrative and Common Services)

Analysis of overall costs (in US$)

Object of expenditure		Estimates of expenditure
010	Established posts	41,143
020	Administrative support	49,000
030	General temporary assistance	4,000
050	Overtime	1,500
100	Common staff costs	24,000
220	Travel of staff	5,000
300	Contractual translation of Centre's documents	3,500
410	Rental and maintenance of premises	4,000
420	Utilities (electricity, water, etc.)	7,000
430	Rental and maintenance of equipment	10,000
440	Communication (cables, telephones, telexes)	10,000
450	Hospitality	2,000
490	Miscellaneous services	15,000
500	Supplies and materials	20,000
600	Furniture and equipment	58,000
	Total	254,143

Explanatory notes

The Division of Administration is responsible for provision of support services to the Centre's programme.

The services include the following:

1. Personnel services:

   Personnel administration, recruitment, personnel data, application of staff rules, leave arrangements.

2. Budget and finance services:

Administration of staff salary scales, administration of allowance and benefits, maintenance of insurance schemes, application of financial rules and regulations, payments and general management of Centre's accounts.

3. General services:

Attendance records, security, building maintenance, purchasing, transportation, communication and records, reproduction, distribution.

To carry out the above tasks, the following resources will be needed:

Salaries of established posts and common staff costs

Provision has been made for the Director of Administration and an Administrative/ Finance Officer at P4 and P2 levels respectively. This will require US$65,143.

Administrative support

Administrative support will be of the following staff:

1 Administrative Assistant - GS9
1 Bilingual Secretary - GS7
1 Messanger, 2 Drivers, 2 Guards and 1 Gardener

The secretaries for the other three divisions have also been included in the financial provision of US$49,000. The posts requirements for the secretaries of other divisions have been shown under each division.

General temporary assistance

US$4,000 has been provided to assist in financing the cost of temporary replacement of staff on leave and employment of additional temporary staff at peak periods of work.

Official travel

A sum of US$5,000 has been estimated for travel of staff to study the system of administration while setting the ARCSE administration.

Rental and maintenance of equipment

The equipment of the Centre (cars, typewriters, photocopiers, etc.) will need to be maintained and repaired when broken down. In case the Centre does not have the equipment, it may have to be hired. US$10,000 has been set aside for this.

Communications

The Centre will need communication with the outside world by telexes, telephones and cables. For this, US$10,000 has been provided.

Supplies and materials

In the first year when everything will begin from the start, provision for stationery, inks, stencils, paper clips, etc. will be on the high side. US$20,000 has been estimated.

Furniture and equipment

Provision has been made for furniture (desks, chairs, tables, filing cabinets, cupboards, shelves, etc.) for the Centre.

Provision has also been made for one car for the Executive Director, one general purpose car, one small motor cycle, four typewriters, a copier, a duplication machine, stencil scanner, and sundry other materials for the office. The cost of these has been estimated at US$53,000.

Total for Administration and common services is estimated at US$252,143.

Established Post Requirements

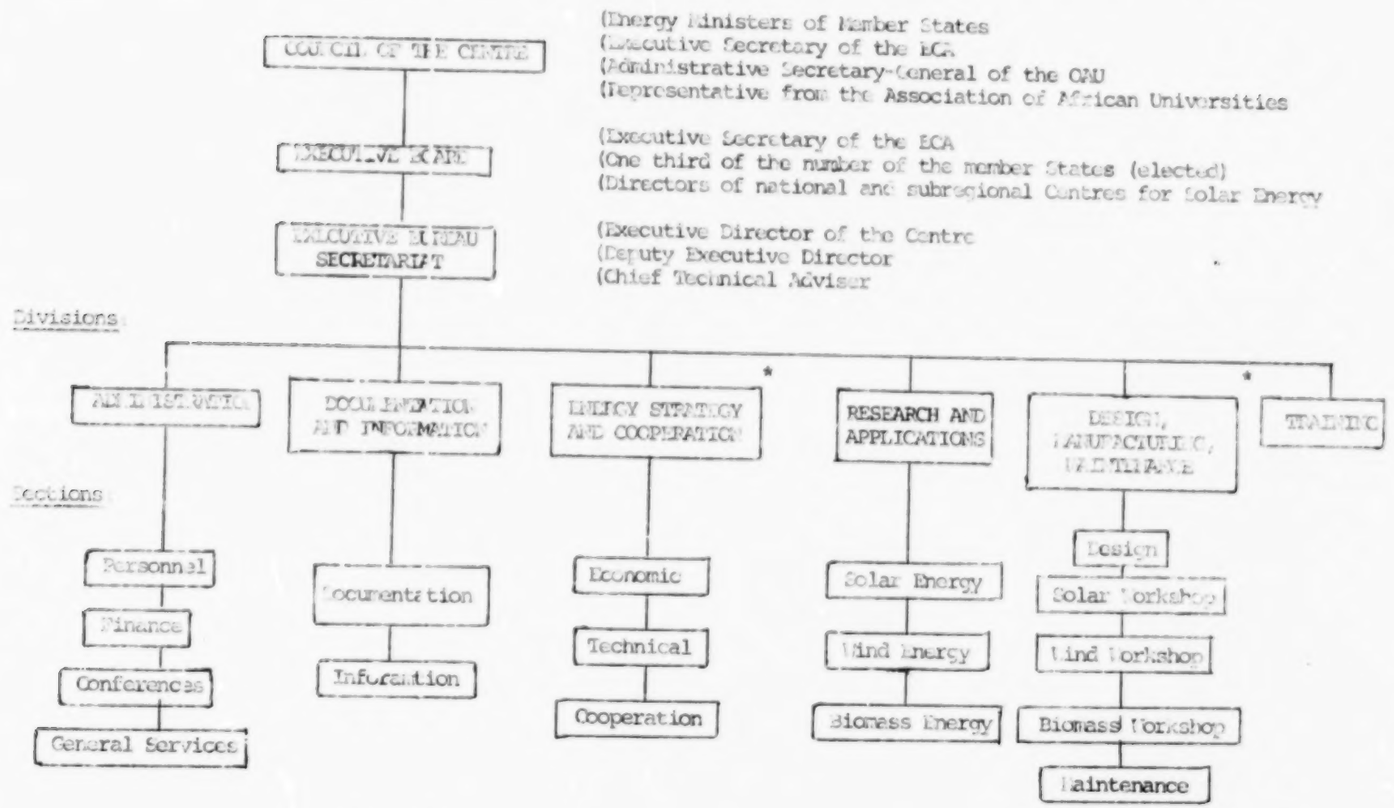
(1987/1987)

Programme: Programme Support (Administrative and Common Services)

Description	Regular Budget 1986/87	Extrabudgetary 1986/87	Total
Professional category			
P6	-	-	-
P5	-	-	-
P4 (Director)	1	-	1
P3	-	-	-
P2 (Finance Officer)	1	-	1
P1	-	-	-
Sub-total	2	-	2
General services category			
GS9	1	-	1
GS8	-	-	-
GS7	1	-	1
GS6	-	-	-
GS5	-	-	-
GS4	-	-	-
GS3	-	-	-
GS2	6	-	6
GS1	-	-	-
Sub-total	8	-	8
Grand-total	10	-	10

Annex I

GENERAL ORGANIZATIONAL CHART OF THE AFRICAN REGIONAL CENTRE FOR SOLAR ENERGY



* Establishment postponed to later years.

1. EXECUTIVE DIRECTION AND MANAGEMENT

Programme Element	Output	Implementation of Activities	Time Table
1. Policy Analysis and Planning	(i) Report to the Executive Board and Council on the review and appraisal of the progress in the implementation of the work programme of the Centre	Compilation of the report to be done on quarterly basis	Continuous
	(ii) Substantive servicing of the meetings of the Executive Board (two meetings, second quarter and fourth quarter 1987) and Council (fourth quarter 1987)	The Executive Board is likely to meet midway through the year and meet again at the end of the year. Reports on the agenda items will be prepared	May 1987 Nov. 1987
1.2 Programme Co-ordination and Monitoring	(i) Report to the Executive Board and Council on the proposed work programme and budget for 1987 and Medium-Term Plan for the period 1987-1990		Nov. 1987
	(ii) Determination of the staffing needs of the Centre		Nov. 1987
	(iii) Report on the establishment of the Centre in the temporary premises		Nov. 1987
	(iv) Finalization of the agreement between the host country and the Centre		May 1987
	(v) Sensitization of member States and other international organizations about the Centre and soliciting of member States contributions. Establishments of focal points in member States	Mission to member States and international organizations	Continuous

Programme Element	Output	Implementation of Activities	Time Table
	(vi) Administration and management of the Centre. Contact with donors		Continuous
	2. ADMINISTRATION AND SUPPORT SERVICES		
2.1 Establishment of the Secretariat of the Centre in Bujumbura	(i) Establish procedures for administration and management of Centre's resources: this includes the following services:		Continuous
	Personnel services		
	Personnel administration, recruitment, personnel data, leave arrangements, management meetings, administration of staff rules		
	Budget and financial services		
	Administration of financial rules, administration of salaries, allowances, benefits and insurance schemes, control of Centre's resources etc.		
	General services		
	Building maintenance, security, attendance records, purchasing, transportation, communications, reproduction, distribution, publications, conferences		
	(ii) Prepared draft staff rules and regulations and financial rules and regulations for the Centre		May 1987

Programme Element		Output	Implementation of Activities	Time Table
	(iii)	Preparation of design studies for the buildings, workshops and laboratories for the permanent premises of the Centre		May 1987
		Conference Services provision		Continuous
		3. RESEARCH AND APPLICATION		
3.1 Solar Energy needs assessment surveys	(i)	Reports on the solar energy needs assessment in selected countries to enable the Centre develop strategies and programmes for solar energy development	Desk work on available information on solar energy needs in African countries. Missions to selected countries to obtain up-to-date information on the solar energy needs. Missions to organizations on the same subject.	Jan. - July 1987
	(ii)	Consultations with member States and international organizations on the solar energy needs and the work programme of the Centre		
3.2 Technical assistance and co-operation	(i)	Advisory services on request to member States on establishing national Centres for solar energy development and utilization and on development and utilization of solar, wind and biomass energy in member States	Missions to member States	Jan. - September 1987
	(ii)	Report to the Executive Board and Council on the revised work programme of the Division dealing with Research and Applications, energy strategy and co-operation and design, manufacturing and maintenance	Formulation of the work programme for the three technical Divisions for 1987 and beyond	Continuous throughout the year

Programme Element		Output	Implementation of Activities	Time Table
	(iii)	Establishment and maintenance of solar energy equipment for research and application	Drawing up the list of equipment, ordering it from suppliers and installing the equipment	Jan. - July 1987
	(iv)	Preparation of a publication on the principles of solar energy utilization		Continuous throughout the year
		4. INFORMATION AND DOCUMENTATION		
4.1 Strengthening energy technological links	(i)	Identification of needs for energy technological information on the transfer and adaptation of technology in African countries		
	(ii)	Advisory services to member States on the diffusion of selected energy technologies based on the Centre's R & D work		Continuous throughout the year
	(iii)	Report to the Executive Board and Council on the setting up of an information system for new and renewable sources of energy		
	(iv)	Collection of information for compilation of a directory of African institutions engaged in R & D work in the field of solar energy		
	(v)	Establishment of equipment for processing information in the field of NRSE and solar energy in particular		

5. TRAINING

Programme Element		Output	Implementation of Activities	Time Table
5.1 Research, training and information	(i)	Identification of training in the field of new and renewable sources of energy in member States	Desk work on the available information. Missions to member States and international organizations to collect information. Contact with institutions including universities on the establishment of training programmes in the NRSE field and solar energy in particular	Continuous throughout the year
	(ii)	Designing of training programmes intended to introduce new curricula incorporating the development and utilization of new and renewable sources of energy in national universities, colleges and other institutions		
	(iii)	Substantive servicing of a workshop for government officials on solar energy utilization		October to November 1987

Membership of the African Regional Centre for Solar Energy (ARCSE) as of 1 January 1986 and Expected Contribution to the Operational Budget for the Period November 1986 - December 1987

Nos.	Countries	OAU Scales (1985)	ARCSE Scale	Contribution US$
1	Angola	1.49	2.70	19,275
2	Burkina Faso	1.14	2.07	14,778
3	Burundi	0.79	1.43	10,209
4	Cameroon	2.26	4.10	29,270
5	Cote d'Ivoire	2.93	5.31	37,908
6	Djibouti	0.50	0.91	6,496
7	Egypt	7.93	14.38	102,658
8	Equatorial Guinea	0.50	0.91	6,496
9	Gabon	0.89	1.61	11,494
10	Ghana	3.73	6.76	48,259
11	Guinea	1.01	1.83	13,064
12	Libya	6.49	11.78	84,097
13	Mali	1.11	2.01	14,349
14	Niger	1.16	2.10	14,992
15	Nigeria	10.0	18.13	129,429
16	Sierra Leone	0.75	1.36	9,709
17	Sudan	3.63	6.58	46,974
18	Togo	0.50	0.91	6,496
19	Uganda	2.74	4.97	35,481
20	Zaire	4.16	7.54	53,828
21	Zambia	1.44	2.61	18,633
	Total	55.15	100	713,893

Annual Salary Scale of Professional and Technical Staff

Classifications	STEPS									
	I	II	III	IV	V	VI	VII	VIII	IX	X
P1	10,080	10,430	10,780	11,130	11,480	11,830	12,180	12,530	12,880	13,230
P2	12,600	12,964	13,328	13,692	14,056	14,420	14,784	15,148	15,512	15,876
P3	15,400	15,792	16,184	16,576	16,968	17,360	17,752	18,144	18,536	18,928
P4	18,020	19,040	19,460	19,880	20,300	20,720	21,140	21,560	21,980	22,400
P5	22,400	22,848	23,296	23,744	24,192	24,640	25,088	25,536	25,984	26,432
P6	23,996	24,458	24,920	25,382	25,844	26,306	26,768	27,230	27,692	28,154
D1*	26,530	27,020	27,510	28,000	28,490	28,980	29,470	29,960	30,450	30,940

* Proposed but not yet implemented.

Annual Salary Scale of General Service Staff

Classification	S T E P S									
	I	II	III	IVI	IV	VI	VII	VIII	IX	X
GS1	658	714	770	826	882	938	994	1,050	1,106	1,162
GS2	938	1,001	1,064	1,127	1,190	1,253	1,316	1,379	1,442	1,505
GS3	1,330	1,414	1,498	1,582	1,666	1,750	1,834	1,918	2,002	2,086
GS4	1,862	1,986	2,114	2,240	2,366	2,492	2,618	2,744	2,870	2,996
GS5	2,555	2,695	2,835	2,975	3,115	3,255	3,395	3,535	3,675	3,815
GS6	3,220	3,388	3,556	3,724	3,892	4,060	4,228	4,396	5,564	4,732
GS7	4,410	4,634	4,858	5,082	5,306	5,530	5m754	5,978	6,202	6,426
GS8	6,020	6,286	6,552	6,818	7,084	7,350	7,616	7,882	8,148	8,414
GS9	7,280	7,560	7,840	8,120	8,400	8,680	8,960	9,240	9,520	9,800
GS10	8,540	8,820	9,100	9,380	9,660	9,940	10,220	10,500	10,780	11,060